

acid variants.

A 41. A process for poly(A)-specific degradation of nucleic acids, said process comprising contacting a nucleic acid with a polypeptide as claimed in claim 28.

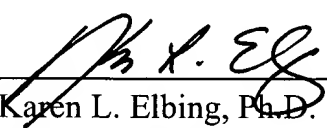
42. A process as claimed in claim 41, wherein the nucleic acid is mRNA.--

Conclusion

If there are any charges, or any credits, kindly apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: 25 October 2000



Karen L. Elbing, Ph.D.
Reg. No. 35,238

Clark & Elbing LLP
176 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045

\\Ntserver\documents\50186\50186.003001 Preliminary Amendment for the Claims.wpd

Abstract

Human deadenylating nuclease, its preparation and use

The invention relates to a nucleic acid which encodes a human deadenylating nuclease (DAN) having an amino acid sequence as depicted in SEQ 11 or a functional variant thereof, and parts thereof having at least 8 nucleotides.

15. A process for identifying functional interactors comprising a nucleic acid as claimed in one of claims 1-5 or a polypeptide as claimed in claim 7 or antibodies as claimed in claim 9 and, where appropriate, suitable additives and/or adjuvants.
- 5
16. The use of a nucleic acid as claimed in one of claims 1-5 or a polypeptide as claimed in claim 7 for identifying functional interactors.
- 10
17. The use of a nucleic acid as claimed in one of claims 1-5 for finding variants of human DAN, wherein a gene library is screened with said nucleic acid and the variant which is found is isolated.
- 15
18. The use of a polypeptide as claimed in claim 7 for the poly(A)-specific degradation of nucleic acids, in particular of mRNA.

5

10

15

20

25

30

35

wherein a pharmaceutically acceptable excipient is added to a nucleic acid as claimed in one of claims 1-5 or a polypeptide as claimed in claim 7 or antibodies as claimed in claim 9.